

Chapter 1 - Introduction to the SWQM Data Management Reference Guide

The purpose of this guide is to assist the Texas Commission on Environmental Quality (TCEQ) Clean Rivers Program (CRP) planning agencies, Total Maximum Daily Load (TMDL) Program contractors, Surface Water Quality Monitoring (SWQM) Program staff, Water Quality Standards (WQS) Group staff and contractors, Non-Point Source (NPS) Program contractors, and any other TCEQ programs or external entities submitting data to the TCEQ Surface Water Quality Monitoring Information System (SWQMIS) database. This guide outlines the processes for requesting parameter codes, station ID numbers, submitting and collecting entity codes, tag prefixes, corrections to data in SWQMIS, and data reports. It also explains data review and data reporting (including data reporting formats) and contains reference maps, tables, and descriptions for use when submitting data to the TCEQ. Guidance is also provided for using SWQMIS tools to extract and interact with data in the database.

The original SWQM Program was established in 1967 with the purpose of collecting and analyzing the data necessary to describe the water quality of Texas streams, reservoirs and estuaries. Today, SWQMIS contains more than 39 years of physicochemical and biological data from up to 8,500 monitoring stations throughout Texas. TCEQ, contributing river authorities, cities, and other local, state, and federal agencies collect this data.

The TCEQ maintains SWQMIS. This database serves as a repository for TCEQ surface water quality data. SWQMIS also provides validation and reporting tools, a mapping interface, and modules for tracking information about analytical laboratories, quality assurance documents, and monitoring equipment. Forms related to SWQM data and SWQMIS are available in the Forms module of SWQMIS. These forms include the SWQMIS Change Request Template, the Data Correction Request, the Data Review Checklist, the Parameter/Constituent Request, the Standard Data Request, and the Submitting Entity/Collecting Entity/Monitoring Type Request.

The Monitoring and Assessment Section Data Management and Analysis Team (DM&A) is responsible for management of surface water quality data and metadata in cooperation with other TCEQ water programs and the Information Resources Division (IRD). This responsibility includes documentation and maintenance of records relating to the processes described in this document. Relationships between DM&A and other water program areas are documented in project-specific Quality Assurance Project Plans (QAPPs). Data not meeting quality requirements set forth in these QAPPs may be stored in SWQMIS with appropriate qualifiers (see Chapter 9).

The statewide water quality database has received data since 1967, allowing for the assessment of short and long-term trends. This data may be used by TCEQ to characterize existing conditions, evaluate spatial and temporal trends, develop water quality standards, determine water quality standards compliance, identify emerging problems, and evaluate the effectiveness of water quality control programs.

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